A. INTRODUCTION

In accordance with the *City Environmental Quality Review* (CEQR) *Technical Manual*, where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated. As discussed in previous chapters of this EIS, the Proposed Action has the potential to result in significant adverse impacts to transportation**.** This chapter considers mitigation measures to address the significant adverse impacts generated by the Proposed Action. Measures to further mitigate significant adverse impacts will continue to be evaluated between the DEIS and FEIS. Therefore, the FEIS may include additional information and commitments on all practicable and feasible mitigation measures to be implemented with the Proposed Action.

B. PRINCIPAL CONCLUSIONS

Transportation

Traffic

As described in **Chapter 4, "Transportation,"** the Proposed Actions would result in significant adverse impacts at seven study area intersection during one or more analyzed peak hour during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. Implementation of traffic engineering improvements, such as signal timing changes would provide mitigation for most of the anticipated traffic impacts. Implementation of the recommended traffic engineering improvements is subject to review and approval by the New York City Department of Transportation (DOT) and will be further refined between the DEIS and FEIS. If, prior to implementation, DOT determines that an identified mitigation measure is infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Assuming all the proposed mitigation measures were implemented, **Table 9-1** shows that significant adverse impacts would be fully mitigated at two lane groups in the weekday AM peak hour, one lane group in the midday peak hour, two lane groups in the weekday PM peak hour, and one lane group in the Saturday peak hour. Impacts would be fully mitigated at one intersection during the weekday AM, PM, and Saturday peak hours. During the weekday midday peak hour, none of the impacted intersections would be fully mitigated. **Table 9-2** provides a more detailed summary of the intersections and lane groups that would have unmitigated significant adverse traffic impacts. In total, impacts to one or more lane groups would remain unmitigated in one or more peak hours at seven intersections.

TABLE 9-1
Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts

Peak Hour	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	37/10	27/4	10/6	2/1	8/5
Weekday Midday	37/10	29/5	8/5	1/0	7/5
Weekday PM	37/10	18/3	19/7	2/1	17/6
Saturday Midday	37/10	33/7	4/3	1/1	3/2

TABLE 9-2
Lane Groups With Unmitigated Significant Adverse Traffic Impacts

	Peak Hour			
	Weekday AM	Weekday Midday	Weekday PM	Saturday
Signalized Intersections				
Flushing Avenue & Wyckoff Avenue	EB-TR	EB-TR	-	-
Flushing Avenue & Melrose Street & Irving Avenue & Thames Street & Varick Avenue	Flushing EB-LT, Flushing WB-LT, Varick SB-TR	Flushing EB-LT, Flushing WB-LT, Varick SB-TR	Flushing EB-LT Flushing EB-R, Flushing WB-LT, Melrose WB-LT, Flushing SB-LTR, Melrose SB-LTR, Varick SB-TR	Flushing SB-LTR, Varick SB-TR
Flushing Avenue & Knickerbocker Avenue	WB-TR	EB-LT	EB-LT, WB-TR	-
Flushing Avenue & Morgan Avenue & Wilson Avenue	WB-LTR, SB-LTR	EB-LTR	EB-LTR, WB-LTR, SB-LTR	-
Troutman Street & Irving Avenue	-	-	WB-LT, SB-TR	-
Troutman Street & Knickerbocker Avenue	-	-	WB-TR, NB-LT	-
Unsignalized Intersections				
Jefferson Street & Irving Avenue	EB-TR	EB-TR	EB-TR	EB-TR
Notes: NB—northbound, SB—southbound, EB—eastbound, WB—westbound L—left-turn, T—through, R—right-turn				

Pedestrians

As described in **Chapter 4, "Transportation,"** incremental demand from the Proposed Development would result in significant adverse impacts to one crosswalk in one or more peak hours. There would be no significant adverse impacts to analyzed sidewalks and corner areas in any period. Widening the impacted crosswalk by 4.5 feet would fully mitigate the significant crosswalk impacts. Implementation of the proposed mitigation measures would be subject to review and approval by DOT.

C. TRANSPORTATION

Traffic

As described in **Chapter 4, "Transportation,"** the Proposed Actions would result in significant adverse traffic impacts at seven study area intersections (six signalized and one unsignalized) during one or more analyzed peak hours; specifically 10 lane groups at six intersections during the weekday AM peak hour, eight lane groups at five intersections during the midday peak hour, 19 lane groups at seven intersections during the PM peak hour, and four lane groups at three intersections during the Saturday midday peak

hour. As demonstrated below, many of these impacts could be mitigated through the implementation of traffic engineering improvements, including the modification of existing traffic signal timings.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 9-3** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, midday, PM, and Saturday peak hours. Implementation of the recommended traffic engineering improvements is subject to review and approval by DOT. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

TABLE 9-3
Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No Action Signal Timing (Seconds) (1) AM	MD	PM	SAT	Proposed Signal Timing (Seconds) (1) AM	MD	PM	SAT	Recommended Mitigation
Flushing Avenue &	EB/WB	46	46	46	46	49	49	50	47	- Transfer 3s of green time from NB to EB/WB in AM and midday.
Wykoff Avenue	NB	44	44	44	44	41	41	40	43	- Transfer 4s and 1s of green time from NB to EB/WB in PM and
Flushing Avenue &	EB/WB (Flushing Av)	39	39	39	39	39	39	39	39	Unmitigatable
Melrose Street &										
Irving Avenue	EB/WB (Melrose Av)	27	27	27	27	27	27	27	27	
	SB	24	24	24	24	24	24	24	24	
Flushing Avenue &	EB/WB	45	45	45	45	50	50	50	45	Unmitigatable
Knickerbocker Avenue	NB	35	35	35	35	40	40	40	35	
Flushing Avenue &	EB/WB	52	52	52	52	52	52	52	52	Unmitigatable
Morgan Avenue &	PED	7	7	7	7	7	7	7	7	
Wilson Avenue	NB/SB	31	31	31	31	31	31	31	31	
Troutman St &	WB	24	24	24	24	24	24	24	24	Unmitigatable
Irving Ave	SB	36	36	36	36	36	36	36	36	
Troutman St &	WB	27	27	27	27	26	27	27	27	- Transfer 1s of green time from WB to NB in AM.
Knickerbocker Ave	NB	33	33	33	33	34	33	33	33	
Jefferson St &	EB/WB									Unmitigatable
Irving Ave	PED	**Unsignalized**				**Unsignalized**				
	SB									

Notes: (1) Signal timings shown indicate green plus yellow (including all red) for each phase.

Tables 9-4 through **9-7** show the v/c ratios, delays, and levels of service (LOS) for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No-Action and With Action conditions for the weekday AM, midday, PM, and Saturday midday peak hours, respectively. According to *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No Action Condition is no longer deemed significant following the impact criteria described in **Chapter 4, "Transportation." Tables 9-4 through 9-7** show that significant adverse impacts would be fully mitigated at two lane groups in the weekday AM peak hour, one lane group in the midday peak hour, two lane groups in the weekday PM peak hour, and one lane group in the Saturday peak hour. Impacts would be fully mitigated at one intersection during the weekday AM, PM, and Saturday peak hours. During the weekday midday peak hour, none of the impacted intersections would be fully mitigated. In total, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at seven intersections. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see also **Chapter 11, "Unavoidable Adverse Impacts"**).

TABLE 9-4
Action-With-Mitigation Conditions at Impacted Lane Groups – Weekday AM Peak Hour

	No-Action AM Peak Hour						With-Action AM Peak Hour						Mitigation AM Peak Hour					
Signalized Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Flushing Ave &	EB	TR	0.89	41.4	D		EB	TR	1.07	87.3	F	*	EB	TR	1.00	63.1	E	*
Wyckoff Ave	WB	LT	1.13	102.7	F		WB	LT	1.28	161.4	F	*	WB	LT	1.13	97.9	F	
	NB	LR	0.44	20.7	C		NB	LR	0.57	24.0	C		NB	LR	0.62	27.9	C	
Flushing Ave &	Flushing EB	LT	0.90	47.0	D		Flushing EB	LT	0.97	59.5	E	*	Flushing EB	LT	0.97	59.5	E	*
Melrose St & Irving Ave &	Flushing EB	R	0.24	20.7	C		Flushing EB	R	0.38	32.7	C		Flushing EB	R	0.38	32.7	C	
Thames St & Varick Ave	Melrose EB	LTR	0.34	31.3	C		Melrose EB	LTR	0.43	33.7	C		Melrose EB	LTR	0.43	33.7	C	
	Flushing WB	LT	0.93	33.8	C		Flushing WB	LT	1.08	72.7	E	*	Flushing WB	LT	1.08	72.7	E	*
	Flushing WB	R	0.29	6.8	A		Flushing WB	R	0.32	7.1	A		Flushing WB	R	0.32	7.1	A	
	Melrose WB	LT	0.77	16.6	B		Melrose WB	LT	0.85	22.2	C		Melrose WB	LT	0.85	22.2	C	
	Melrose WB	R	0.29	6.8	A		Melrose WB	R	0.32	7.1	A		Melrose WB	R	0.32	7.1	A	
	Thames WB	TR	0.19	5.7	A		Thames WB	TR	0.20	5.8	A		Thames WB	TR	0.20	5.8	A	
	Flushing SB	LTR	0.52	38.3	D		Flushing SB	LTR	0.68	46.0	D		Flushing SB	LTR	0.68	46.0	D	
	Melrose SB	LTR	0.52	38.3	D		Melrose SB	LTR	0.68	46.0	D		Melrose SB	LTR	0.68	46.0	D	
	Varick SB	TR	0.88	65.6	E		Varick SB	TR	1.01	93.5	F	*	Varick SB	TR	1.01	93.5	F	*
Flushing Ave &	EB	LT	0.76	27.3	C		EB	LT	0.82	31.5	C		EB	LT	0.82	31.5	C	
Knickerbocker Ave	WB	TR	1.05	73.4	E		WB	TR	1.09	85.1	F	*	WB	TR	1.09	85.1	F	*
	NB	L	0.35	21.8	C		NB	L	0.35	21.8	C		NB	L	0.35	21.8	C	
	NB	TR	1.09	90.3	F		NB	TR	1.09	90.3	F		NB	TR	1.09	90.3	F	
Flushing Ave &	EB	LTR	0.91	39.9	D		EB	LTR	0.97	50.5	D		EB	LTR	0.97	50.5	D	
Morgan Ave & Wilson Ave	WB	LTR	1.12	94.7	F		WB	LTR	1.16	107.2	F	*	WB	LTR	1.16	107.2	F	*
	NB	LTR	1.11	119.4	F		NB	LTR	1.11	119.4	F		NB	LTR	1.11	119.4	F	
	SB	LTR	1.04	95.0	F		SB	LTR	1.06	100.4	F	*	SB	LTR	1.06	100.4	F	*
Troutman St &	WB	LTR	0.52	21.4	C		WB	LTR	0.68	27.5	C		WB	LTR	0.68	27.5	C	
Wyckoff Ave	NB	LT	0.40	10.8	B		NB	LT	0.45	11.6	B		NB	LT	0.45	11.6	B	
	SB	TR	0.50	12.3	B		SB	TR	0.54	12.9	B		SB	TR	0.54	12.9	B	
Troutman St &	WB	LT	0.71	28.2	C		WB	LT	0.73	29.2	C		WB	LT	0.73	29.2	C	
Irving Ave	SB	TR	0.64	15.3	B		SB	TR	0.70	17.2	B		SB	TR	0.70	17.2	B	
Troutman St &	WB	TR	0.75	29.3	C		WB	TR	0.84	36.9	D		WB	TR	0.88	43.4	D	
Knickerbocker Ave	NB	LT	1.10	82.1	F		NB	LT	1.15	98.8	F	*	NB	LT	1.11	83.1	F	
Flushing Ave &	EB	LT	0.04	12.6	B		EB	LT	0.68	15.5	B		EB	LT	0.68	15.5	B	
Stewart Ave							WB	TR	1.00	48.0	D		WB	TR	1.00	48.0	D	
(NA_Unsignalized)	SB	LR	0.39	49.0	E		SB	LR	0.33	29.9	C		SB	LR	0.33	29.9	C	
(WA_Signalized)																		
Jefferson St &	EB	LTR	-	9.82	A		EB	LTR	-	10.82	B		EB	LTR	-	10.82	B	
Wyckoff Ave	NB	TR	-	9.94	A		NB	TR	-	11.69	B		NB	TR	-	11.69	B	
(Unsignalized)	SB	LT	-	11.37	B		SB	LT	-	12.41	B		SB	LT	-	12.41	B	
Jefferson St &	EB	TR	0.47	20.1	C		EB	TR	1.02	105.0	F	*	EB	TR	1.02	105.0	F	*
Irving Ave	SB	LT	0.02	7.2	A		SB	LT	0.02	7.2	A		SB	LT	0.02	7.2	A	
(Unsignalized)																		

TABLE 9-5

Action-With-Mitigation Conditions at Impacted Lane Groups – Weekday Midday Peak Hour

	No-Action Midday Peak Hour					With-Action Midday Peak Hour						Mitigation Midday Peak Hour					
Signalized Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Flushing Ave &	EB	TR	1.22	137.9	F	EB	TR	1.39	211.8	F	*	EB	TR	1.29	167.9	F	*
Wyckoff Ave	WB	LT	1.17	122.5	F	WB	LT	1.23	148.1	F	*	WB	LT	1.07	82.0	F	
	NB	LR	0.35	19.0	B	NB	LR	0.41	20.1	C		NB	LR	0.45	22.9	C	
Flushing Ave &	Flushing EB	LT	1.07	87.8	F	Flushing EB	LT	1.12	105.5	F	*	Flushing EB	LT	1.12	105.5	F	*
Melrose St & Irving Ave &	Flushing EB	R	0.47	26.4	C	Flushing EB	R	0.68	40.2	D		Flushing EB	R	0.68	40.2	D	
Thames St & Varick Ave	Melrose EB	LTR	0.38	32.5	C	Melrose EB	LTR	0.40	33.0	C		Melrose EB	LTR	0.40	33.0	C	
	Flushing WB	LT	0.86	27.5	C	Flushing WB	LT	1.04	63.9	E	*	Flushing WB	LT	1.04	63.9	E	*
	Flushing WB	R	0.10	5.3	A	Flushing WB	R	0.11	5.4	A		Flushing WB	R	0.11	5.4	A	
	Melrose WB	LT	0.65	12.8	B	Melrose WB	LT	0.79	19.2	B		Melrose WB	LT	0.79	19.2	B	
	Melrose WB	R	0.10	5.3	A	Melrose WB	R	0.11	5.4	A		Melrose WB	R	0.11	5.4	A	
	Thames WB	TR	0.07	5.0	A	Thames WB	TR	0.08	5.1	A		Thames WB	TR	0.08	5.1	A	
	Flushing SB	LTR	0.73	46.8	D	Flushing SB	LTR	0.76	48.8	D		Flushing SB	LTR	0.76	48.8	D	
	Melrose SB	LTR	0.73	46.8	D	Melrose SB	LTR	0.76	48.8	D		Melrose SB	LTR	0.76	48.8	D	
	Varick SB	TR	1.08	107.4	F	Varick SB	TR	1.11	116.9	F	*	Varick SB	TR	1.11	116.9	F	*
Flushing Ave &	EB	LT	1.11	94.6	F	EB	LT	1.16	114.2	F	*	EB	LT	1.16	114.2	F	*
Knickerbocker Ave	WB	TR	0.70	24.2	C	WB	TR	0.74	26.4	C		WB	TR	0.74	26.4	C	
	NB	L	0.24	19.9	B	NB	L	0.24	19.9	B		NB	L	0.24	19.9	B	
	NB	TR	1.08	89.8	F	NB	TR	1.08	89.8	F		NB	TR	1.08	89.8	F	
Flushing Ave &	EB	LTR	1.12	96.3	F	EB	LTR	1.17	113.7	F	*	EB	LTR	1.17	113.7	F	*
Morgan Ave & Wilson Ave	WB	LTR	0.71	23.1	C	WB	LTR	0.74	24.7	C		WB	LTR	0.74	24.7	C	
	NB	LTR	1.09	121.4	F	NB	LTR	1.09	121.4	F		NB	LTR	1.09	121.4	F	
	SB	LTR	1.10	107.6	F	SB	LTR	0.11	111.5	F		SB	LTR	0.11	111.5	F	
Troutman St &	WB	LTR	0.52	21.9	C	WB	LTR	0.62	25.4	C		WB	LTR	0.62	25.4	C	
Wyckoff Ave	NB	LT	0.37	10.5	B	NB	LT	0.39	10.8	B		NB	LT	0.39	10.8	B	
	SB	TR	0.67	16.3	B	SB	TR	0.70	17.7	B		SB	TR	0.70	17.7	B	
Troutman St &	WB	LT	0.74	30.9	C	WB	LT	0.77	33.0	C		WB	LT	0.77	33.0	C	
Irving Ave	SB	TR	0.83	24.9	C	SB	TR	0.91	33.5	C		SB	TR	0.91	33.5	C	
Troutman St &	WB	TR	0.80	32.9	C	WB	TR	0.90	44.8	D		WB	TR	0.90	44.8	D	
Knickerbocker Ave	NB	LT	0.80	24.4	C	NB	LT	0.82	26.4	C		NB	LT	0.82	26.4	C	
Flushing Ave &	EB	LT	0.05	10.6	B	EB	LT	0.77	19.9	B		EB	LT	0.77	19.9	B	
Stewart Ave						WB	TR	0.64	14.8	B		WB	TR	0.64	14.8	B	
(NA_Unsignalized)	SB	LR	0.30	26.2	D	SB	LR	0.33	29.3	C		SB	LR	0.33	29.3	C	
(WA_Signalized)																	
Jefferson St &	EB	LTR	-	12.6	B	EB	LTR	-	14.01	B		EB	LTR	-	14.01	B	
Wyckoff Ave	NB	TR	-	10.3	B	NB	TR	-	11.21	B		NB	TR	-	11.21	B	
(Unsignalized)	SB	LT	-	14.0	B	SB	LT	-	15.01	C		SB	LT	-	15.01	C	
Jefferson St &	EB	TR	1.25	186.1	F	EB	TR	2.93	953.0	F	*	EB	TR	2.93	953.0	F	*
Irving Ave	SB	LT	0.03	7.3	A	SB	LT	0.03	7.3	A		SB	LT	0.03	7.3	A	
(Unsignalized)																	

TABLE 9-6
Action-With-Mitigation Conditions at Impacted Lane Groups –Weekday PM Peak Hour

Signalized Intersections	No-Action PM Peak Hour					With-Action PM Peak Hour						Mitigation PM Peak Hour					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Flushing Ave &	EB	TR	1.14	105.0	F	EB	TR	1.25	150.4	F	*	EB	TR	1.14	102.2	F	
Wyckoff Ave	WB	LT	1.16	115.6	F	WB	LT	1.24	150.1	F	*	WB	LT	1.02	65.7	E	
	NB	LR	0.35	19.0	B	NB	LR	0.49	21.6	C		NB	LR	0.55	26.1	C	
Flushing Ave &	Flushing EB	LT	1.22	140.2	F	Flushing EB	LT	1.42	229.6	F	*	Flushing EB	LT	1.42	229.6	F	*
Melrose St & Irving Ave &	Flushing EB	R	0.59	31.3	C	Flushing EB	R	0.83	55.9	E	*	Flushing EB	R	0.83	55.9	E	*
Thames St & Varick Ave	Melrose EB	LTR	0.50	36.6	D	Melrose EB	LTR	0.54	38.9	D		Melrose EB	LTR	0.54	38.9	D	
	Flushing WB	LT	1.29	157.7	F	Flushing WB	LT	1.55	268.2	F	*	Flushing WB	LT	1.55	268.2	F	*
	Flushing WB	R	0.08	5.1	A	Flushing WB	R	0.12	5.4	A		Flushing WB	R	0.12	5.4	A	
	Melrose WB	LT	0.90	26.8	C	Melrose WB	LT	1.08	71.9	E	*	Melrose WB	LT	1.08	71.9	E	*
	Melrose WB	R	0.08	5.1	A	Melrose WB	R	0.12	5.4	A		Melrose WB	R	0.12	5.4	A	
	Thames WB	TR	0.08	5.1	A	Thames WB	TR	0.11	5.2	A		Thames WB	TR	0.11	5.2	A	
	Flushing SB	LTR	0.99	79.7	E	Flushing SB	LTR	1.01	86.5	F	*	Flushing SB	LTR	1.01	86.5	F	*
	Melrose SB	LTR	1.08	110.0	F	Melrose SB	LTR	1.11	118.5	F	*	Melrose SB	LTR	1.11	118.5	F	*
	Varick SB	TR	1.08	104.4	F	Varick SB	TR	1.10	110.4	F	*	Varick SB	TR	1.10	110.4	F	*
Flushing Ave &	EB	LT	1.15	107.5	F	EB	LT	1.21	130.7	F	*	EB	LT	1.21	130.7	F	*
Knickerbocker Ave	WB	TR	0.94	44.0	D	WB	TR	0.99	56.2	E	*	WB	TR	0.99	56.2	E	*
	NB	L	0.23	19.8	B	NB	L	0.23	19.8	B		NB	L	0.23	19.8	B	
	NB	TR	1.09	92.0	F	NB	TR	1.09	92.0	F		NB	TR	1.09	92.0	F	
Flushing Ave &	EB	LTR	1.12	91.0	F	EB	LTR	1.15	105.2	F	*	EB	LTR	1.15	105.2	F	*
Morgan Ave & Wilson Ave	WB	LTR	0.97	48.5	D	WB	LTR	1.02	61.4	E	*	WB	LTR	1.02	61.4	E	*
	NB	LTR	1.11	121.8	F	NB	LTR	1.11	121.8	F		NB	LTR	1.11	121.8	F	
	SB	LTR	1.09	100.9	F	SB	LTR	1.11	107.2	F	*	SB	LTR	1.11	107.2	F	*
Troutman St &	WB	LTR	0.64	24.9	C	WB	LTR	0.75	31.0	C		WB	LTR	0.75	31.0	C	
Wyckoff Ave	NB	LT	0.37	10.4	B	NB	LT	0.40	10.8	B		NB	LT	0.40	10.8	B	
	SB	TR	0.54	13.2	B	SB	TR	0.63	15.5	B		SB	TR	0.63	15.5	B	
Troutman St &	WB	LT	1.04	78.9	E	WB	LT	1.10	97.0	F	*	WB	LT	1.10	97.0	F	*
Irving Ave	SB	TR	1.16	101.6	F	SB	TR	1.26	145.7	F	*	SB	TR	1.26	145.7	F	*
Troutman St &	WB	TR	1.13	104.9	F	WB	TR	1.24	146.4	F	*	WB	TR	1.24	146.4	F	*
Knickerbocker Ave	NB	LT	1.02	57.4	E	NB	LT	1.05	67.9	E	*	NB	LT	1.05	67.9	E	*
Flushing Ave &	EB	LT	0.08	11.0	B	EB	LT	0.94	36.5	D		EB	LTR	0.94	36.5	D	
Stewart Ave						WB	TR	0.75	18.2	B		NB	TR	0.75	18.2	B	
(NA_Unsignalized)	SB	LR	0.95	101.7	F	SB	LR	0.72	44.6	D		SB	LT	0.72	44.6	D	
(WA_Signalized)																	
Jefferson St &	EB	LTR	-	12.8	B	EB	LTR	-	16.50	C		EB	LTR	-	16.50	C	
Wyckoff Ave	NB	TR	-	10.1	B	NB	TR	-	11.89	B		NB	TR	-	11.89	B	
(Unsignalized)	SB	LT	-	12.2	B	SB	LT	-	14.29	B		SB	LT	-	14.29	B	
Jefferson St &	EB	TR	2.29	645.3	F	EB	TR	5.25	1997.0	F	*	EB	TR	5.25	1997.0	F	*
Irving Ave	SB	LT	0.04	7.4	A	SB	LT	0.04	7.4	A		SB	LT	0.04	7.4	A	
(Unsignalized)																	

TABLE 9-7
Action-With-Mitigation Conditions at Impacted Lane Groups – Saturday Peak Hour

Signalized Intersections	No-Action SAT Peak Hour					With-Action SAT Peak Hour						Mitigation SAT Peak Hour					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Flushing Ave &	EB	TR	0.82	34.4	C	EB	TR	0.87	38.7	D		EB	TR	0.84	35.6	D	
Wyckoff Ave	WB	LT	1.09	92.1	F	WB	LT	1.14	109.8	F	*	WB	LT	1.09	89.7	F	
	NB	LR	0.42	20.3	C	NB	LR	0.54	22.9	C		NB	LR	0.55	24.0	C	
Flushing Ave &	Flushing EB	LT	0.79	35.5	D	Flushing EB	LT	0.83	39.2	D		Flushing EB	LT	0.83	39.2	D	
Melrose St & Irving Ave &	Flushing EB	R	0.39	25.4	C	Flushing EB	R	0.48	29.8	C		Flushing EB	R	0.48	29.8	C	
Thames St & Varick Ave	Melrose EB	LTR	0.29	30.0	C	Melrose EB	LTR	0.29	30.2	C		Melrose EB	LTR	0.29	30.2	C	
	Flushing WB	LT	0.66	13.1	B	Flushing WB	LT	0.81	20.2	C		Flushing WB	LT	0.81	20.2	C	
	Flushing WB	R	0.13	5.5	A	Flushing WB	R	0.15	5.6	A		Flushing WB	R	0.15	5.6	A	
	Melrose WB	LT	0.56	10.2	B	Melrose WB	LT	0.69	13.5	B		Melrose WB	LT	0.69	13.5	B	
	Melrose WB	R	0.13	5.5	A	Melrose WB	R	0.15	5.6	A		Melrose WB	R	0.15	5.6	A	
	Thames WB	TR	0.10	5.2	A	Thames WB	TR	0.11	5.2	A		Thames WB	TR	0.11	5.2	A	
	Flushing SB	LTR	0.78	50.0	D	Flushing SB	LTR	1.06	104.6	F	*	Flushing SB	LTR	1.06	104.6	F	*
	Melrose SB	LTR	0.78	50.0	D	Melrose SB	LTR	0.80	51.6	D		Melrose SB	LTR	0.80	51.6	D	
	Varick SB	TR	1.07	109.1	F	Varick SB	TR	1.09	113.5	F	*	Varick SB	TR	1.09	113.5	F	*
Flushing Ave &	EB	LT	0.77	27.6	C	EB	LT	0.83	31.7	C		EB	LT	0.83	31.7	C	
Knickerbocker Ave	WB	TR	0.58	19.5	B	WB	TR	0.61	20.3	C		WB	TR	0.61	20.3	C	
	NB	L	0.18	19.2	B	NB	L	0.18	19.2	B		NB	L	0.18	19.2	B	
	NB	TR	1.00	67.1	E	NB	TR	1.00	67.1	E		NB	TR	1.00	67.1	E	
Flushing Ave &	EB	LTR	0.85	31.7	C	EB	LTR	0.90	36.8	D		EB	LTR	0.90	36.8	D	
Morgan Ave & Wilson Ave	WB	LTR	0.59	18.6	B	WB	LTR	0.62	19.4	B		WB	LTR	0.62	19.4	B	
	NB	LTR	0.81	53.8	D	NB	LTR	0.81	53.8	D		NB	LTR	0.81	53.8	D	
	SB	LTR	1.09	103.8	F	SB	LTR	1.10	106.5	F		SB	LTR	1.10	106.5	F	
Troutman St &	WB	LTR	0.48	21.5	C	WB	LTR	0.65	28.2	C		WB	LTR	0.65	28.2	C	
Wyckoff Ave	NB	LT	0.45	11.9	B	NB	LT	0.49	12.6	B		NB	LT	0.49	12.6	B	
	SB	TR	0.33	10.0	A	SB	TR	0.38	10.5	B		SB	TR	0.38	10.5	B	
Troutman St &	WB	LT	0.63	25.3	C	WB	LT	0.65	26.3	C		WB	LT	0.65	26.3	C	
Irving Ave	SB	TR	0.89	31.9	C	SB	TR	1.01	54.4	D		SB	TR	1.01	54.4	D	
Troutman St &	WB	TR	0.84	36.4	D	WB	TR	0.95	54.3	D		WB	TR	0.95	54.3	D	
Knickerbocker Ave	NB	LT	0.76	22.1	C	NB	LT	0.79	23.9	C		NB	LT	0.79	23.9	C	
Flushing Ave &	EB	LT	0.08	10.8	B	EB	LT	0.62	14.7	B		EB	LT	0.62	14.7	B	
Stewart Ave						WB	TR	0.59	13.5	B		WB	TR	0.59	13.5	B	
(NA_Unsignalized)	SB	LR	0.31	23.0	C	SB	LR	0.43	32.0	C		SB	LR	0.43	32.0	C	
(WA_Signalized)																	
Jefferson St &	EB	LTR	-	9.11	A	EB	LTR	-	10.24	B		EB	LTR	-	10.24	B	
Wyckoff Ave	NB	TR	-	9.12	A	NB	TR	-	10.33	B		NB	TR	-	10.33	B	
(Unsignalized)	SB	LT	-	8.96	A	SB	LT	-	9.57	A		SB	LT	-	9.57	A	
Jefferson St &	EB	TR	1.28	211.8	F	EB	TR	3.72	1339.0	F	*	EB	TR	3.72	1339.0	F	*
Irving Ave	SB	LT	0.01	7.2	A	SB	LT	0.01	7.2	A		SB	LT	0.01	7.2	A	
(Unsignalized)																	

Effects of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures would not affect traffic conditions at any analyzed intersection in any peak hour.

Proposed Schedule for Traffic Mitigation Measures

Subject to the approval of DOT, the traffic mitigation measures summarized in **Table 9-3** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Projected Development Sites in 2027. As discussed in **Chapter 1, "Project Description,"** construction of the Proposed Project would occur over an approximately 22-month period and it is assumed that full build-out of the Proposed Project would occur by 2025. Additionally, as noted above and described in greater detail below, two additional projected development sites (Lots 29 and Lot 40) have been identified in the Project Area that could be developed as a result of the Proposed Action. However, as described below, no formal

redevelopment plans exist for the non-Applicant-owned sites. Nonetheless, the two sites meet the CEQR soft site criteria and, as such, are anticipated to be redeveloped by 2027. As such, all developments facilitated by the Proposed Action are expected to be operational in 2027.

In order to determine whether the implementation of some or all of the traffic mitigation measures would be warranted in 2025 and/or 2027, the Applicant will commit, in consultation with DOT and DCP, to undertake a transportation monitoring program (TMP). The focus of this TMP will be explored further by the Applicant in consultation with DOT and DCP between DEIS and FEIS. A report summarizing the findings of the TMP would be submitted to DOT and DCP along with relevant backup data. The TMP scope of work for would be submitted for DOT and DCP review and approval prior to implementation. The Applicant would be responsible for all costs associated with the TMP and any proposed traffic improvement/mitigation measures, and would submit all required drawings for such measures to DOT for review and approval.

Pedestrians

As discussed in **Chapter 4, "Transportation,"** incremental demand from the Proposed Actions would result in significant adverse impacts to one crosswalk in one or more peak hours under the With-Action Condition (refer to **Table 9-8**).

TABLE 9-8
Pedestrian Impact Summary

Corridor/ Intersection	Impacted Element	Peak Hour			
		AM	Midday	PM	Saturday
Flushing Avenue & Irving Avenue	South Crosswalk	-	-	X	X

A significant adverse pedestrian impact is considered fully mitigated if measures return the anticipated conditions to an acceptable level, following the same criteria used in determining impacts. Standard mitigation for projected significant adverse pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture or other impediments to pedestrian flow; providing curb extensions, neck-downs or lane reductions to reduce pedestrian crossing distance; and sidewalk widening. Discussed below are recommended mitigation measures to address the Proposed Actions' significant adverse pedestrian impacts. The proposed mitigation measure involves crosswalk widening. Mitigation measures will be explored in coordination with DOT between the publication of the DEIS and FEIS. The Proposed Actions would result in unmitigated significant adverse impacts to pedestrian conditions where no practicable mitigation measures are identified or where impacts would only be partially mitigated, and further, if the proposed mitigation measures are deemed infeasible and no alternate measures are identified.

Crosswalks

As discussed in **Chapter 4, "Transportation,"** incremental demand from the Proposed Actions would result in significant adverse impacts on the south crosswalk at the Flushing Avenue and Irving Avenue intersection in the weekday PM and Saturday peak hours. As shown in **Table 9-9**, the impacted crosswalk would be mitigated with a 4.5-foot widening (to a total of 17.9 feet in width). With the proposed widening, the Proposed Actions' significant adverse impacts (weekday PM and Saturday) on the south crosswalk would be fully mitigated (at LOS D and LOS C during the weekday PM and Saturday peak hours, respectively) based on the *CEQR Technical Manual*.

TABLE 9-9
Action-With-Mitigation Crosswalk Conditions

Intersection	Crosswalk	No-Action			With-Action			Action-with-Mitigation			
		Width (ft.)	Average Pedestrian Space (ft^2/ped)	LOS	Width (ft.)	Average Pedestrian Space (ft^2/ped)	LOS	Width (ft.)	Average Pedestrian Space (ft^2/ped)	LOS	Mitigation Measures
Weekday PM Peak Hour											
Flushing Ave & Irving Ave	South	13.4	33.9	C	13.4	14.2	E *	17.9	19.5	D	- Mitigated by widening the crosswalk by 4.5 ft.
Saturday Peak Hour											
Flushing Ave & Irving Ave	South	13.4	36.1	C	13.4	17.4	D *	17.9	24.1	C	- Mitigated by widening the crosswalk by 4.5 ft.

Notes:
* Denotes a significant impact

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures (discussed previously) would potentially affect pedestrian conditions at a total of two corners and two crosswalks in one or more peak hours. The recommended traffic mitigation measure at Flushing Avenue and Wyckoff Avenue would consist of signal timing adjustments to transfer green time from the northbound phase to the eastbound/westbound phase in each analyzed peak hour (refer to **Table 9-3**).

As shown in **Table 9-10,** with the implementation of the proposed signal timing adjustment at the Flushing Avenue and Wyckoff Avenue intersection, the south and west crosswalk would continue to operate at LOS C or better during each analyzed peak hour. In addition, as shown in **Table 9-11**, the southeast and southwest corners at the Flushing Avenue and Wyckoff Avenue intersection would continue to operate at LOS B or better during each analyzed peak hour with the implementation of the proposed traffic mitigation.

TABLE 9-10
Effects of Traffic Mitigation on Crosswalks

Intersection	Crosswalk	With-Action Condition								Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft^2/ped)				Level of Service				Average Pedestrian Space (ft^2/ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
Flushing Ave @ Wyckoff Ave	South	50.6	53.2	31.5	37.1	B	B	C	C	56.4	59.5	36.2	38.3	B	B	C	C	- Transfer 3s of green time from NB to EB/WB in AM and midday. - Transfer 4s and 1s of green time from NB to EB/WB in PM and Saturday.
	West	92.6	67.9	66.5	40.4	A	A	A	B	82.5	60.7	57.1	38.9	A	A	B	C	

Notes:
Includes proposed signal timing changes outlined in **Table 9-3**.

TABLE 9-11
Effects of Traffic Mitigation on Corners

Intersection	Corner	With-Action Condition								Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft^2/ped)				Level of Service				Average Pedestrian Space (ft^2/ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
Flushing Ave @ Wyckoff Ave	SE	156.5	187.4	113.8	115.3	A	A	A	A	156.8	187.7	114.3	115.5	A	A	A	A	- Transfer 3s of green time from NB to EB/WB in AM and midday. - Transfer 4s and 1s of green time from NB to EB/WB in PM and Saturday.
	SW	105.0	98.5	69.8	58.7	A	A	A	B	105.2	98.6	70.4	58.8	A	A	A	B	

Notes:
Includes proposed signal timing changes outlined in **Table 9-3**.

Proposed Schedule for Pedestrian Mitigation Measures

Subject to the approval of DOT, the pedestrian mitigation measures summarized in **Table 9-9** would be implemented to mitigate the significant adverse crosswalk impacts resulting from the full build-out of the Projected Development Sites in 2027. As previously mentioned, construction of the Proposed Project would occur over an approximately 22-month period and it is assumed that full build-out of the Proposed Project would occur by 2025. In addition, Projected Development Sites 2 and 3 are anticipated to be redeveloped by 2027. As such, it is possible that the crosswalk impacts could occur prior to full build-out in 2027.

Based on the anticipated construction schedule discussed in **Chapter 1, "Project Description,"** 200 or more incremental pedestrian trips generated by the Proposed Action would potentially occur on the impacted crosswalk beginning in 2025 upon completion of the Proposed Project. At this earlier point in time, implementation of the mitigation measures developed for full build-out of the Proposed Actions in 2027 would be considered to address the potential significant adverse pedestrian impacts.